General Electric

SERVICE MANUAL Refrigerator FOR EXPORT 2009

1 Specifications

1-1) Specific parts for specific countries

Item No.	Model	Destination	Power Source (Voltage-ac / Hz)	Power Cord	Internal Volume (Litre) (by ISO 8561;1995)
1.	GTU150PAXR	AUSTRALIA (AU)	240 / 50	O3 Australia plug	440

1-2) Product

Model		GTU150PAXR
Classification		2 Doors No Frost
Temperature Control		Thermostat Electronic
Defrost System		Automatic
Drain		Automatic (Heat by transfer from the Condenser)
Evaporator		Aluminum Coil With Bond
Condenser		Copper Tube Inside
Insulation	Cabinet	Rigid Polyurethane Foam (Cyclopentane)
	Freezer Door	Rigid Polyurethane Foam (Cyclopentane)
	Refrigerator Door	Rigid Polyurethane Foam (Cyclopentane)
Refrigerant		HFC-134a
Refrigerant Charge (g.)		150
Overall Dimension (WxDxH (mm.))		727 x 711 x 1715
Packing Dimension (WxDxH (mm.))		773 x 790 x 1813
Net Weight (kg.)		80.0
Gross Weight (kg.)		88.0

1-3) Characteristic of Thermostat

Operating Temperature ($^{\circ}$C) 1013hPa (mb)

Temperature Control	Model		MM1-8053	
	Dial Position		ON	OFF
	WARM	$^{\circ}$C	-18.4	-21.7
	NORMAL	$^{\circ}$C	-21 $\pm$ 1.5	-24.5 $\pm$ 1.5
	COLD	$^{\circ}$C	-26.7	-30.9

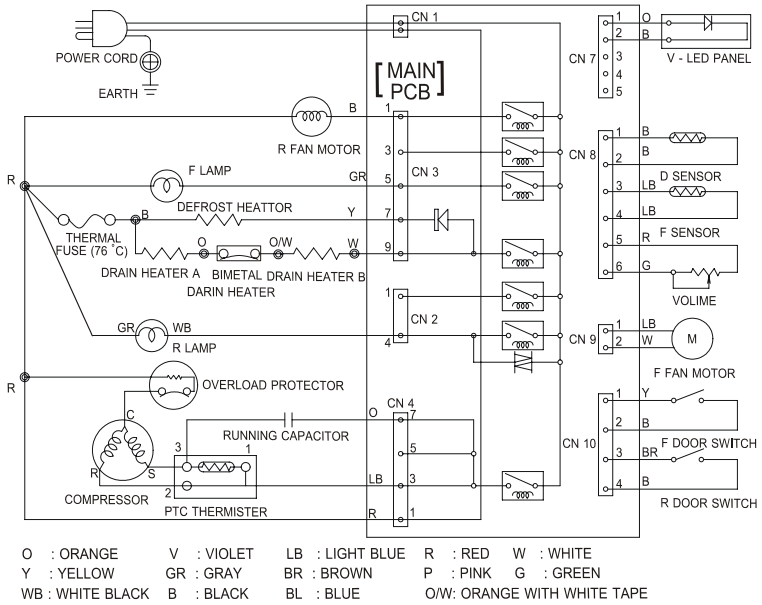
1-4) Electrical Parts

1-4-1) MODEL GTU150PAXR

Compressor	Model	C-BF175L5Z
	Power Supply Range	220-240 V / 50 Hz
Starting Relay		PTH7M330MD2
Overload Protector		4TM276RHBYY-53
Starting Capacitor		-
Running Capacitor		4.0μF / 400 VAC
Interior Light		240 V / 10 W

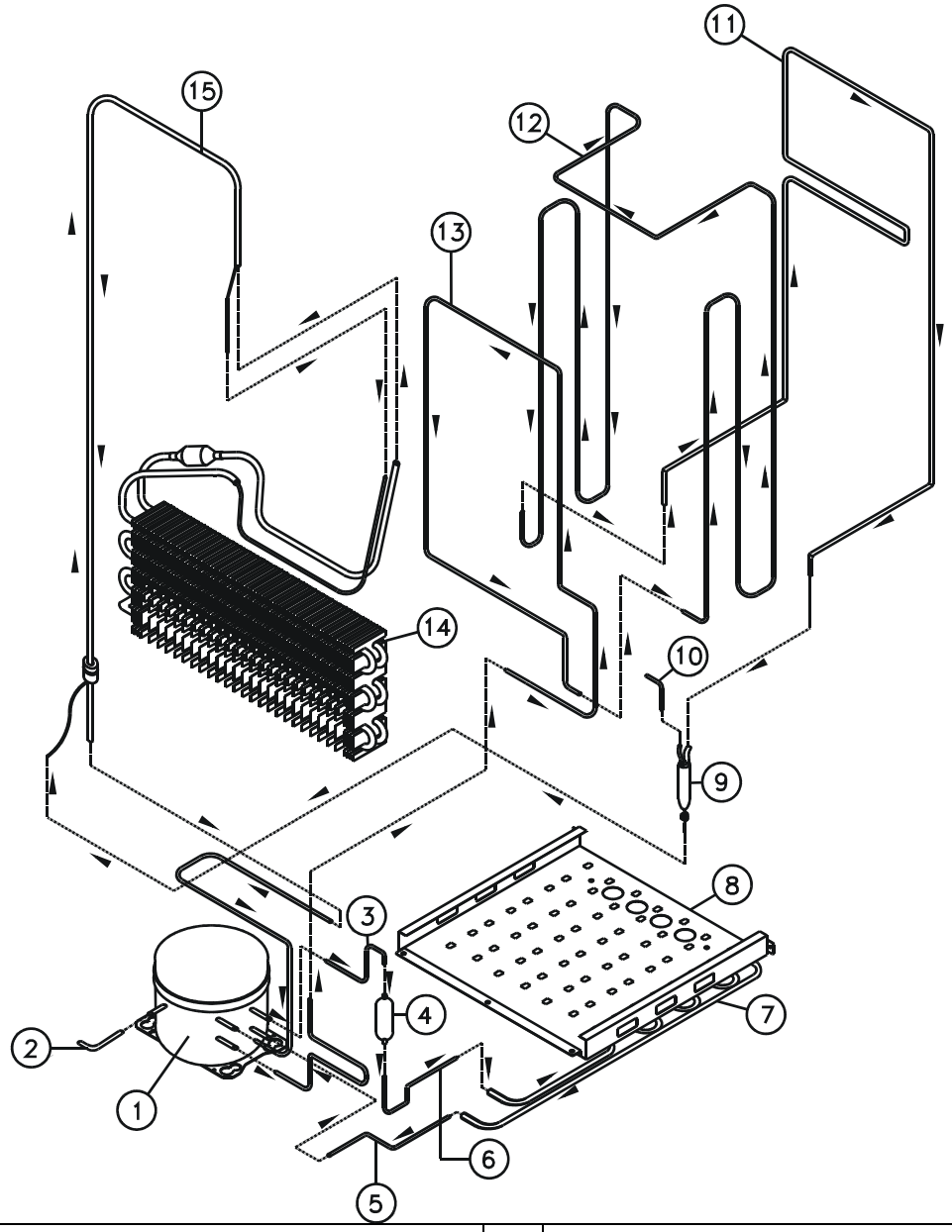
2 Wiring Diagram

Model : GTU150PAXR



3	Refrigerant Circuit

Model : GTU150PAXR



1	COMPRESSOR	9	DRYER ASS'Y
2	TUBE CHARGE	10	TUBE DISCHARGE
3	TUBE CONNECT 139	11	TUBE FRAME
4	ACCUMULATOR / MUFFER	12	TUBE CREST
5	TUBE CONNECT 145	13	TUBE CREST S
6	TUBE CONNECT 143	14	EVAPORATOR ASS'Y
7	CONDENSER PIPE	15	SUCTION TUBE ASS'Y
8	CONDENSER PLATE		

4 Trouble Shooting

4-1) MODEL GTU150PAXR

<table>
<tr><th>Part Name</th><th>Picture</th><th colspan="4">Check Method and Criterion</th></tr>
<tr><td>Compressor</td><td> </td><td colspan="4">Measure the resistance with a tester.
(Ambient temperature : Room temperature 25°C)</td></tr>
<tr><td></td><td></td><td>Model</td><td></td><td>Main Wiring</td><td>Auxiliary Wiring</td></tr>
<tr><td></td><td></td><td rowspan="2">C-BF175 L5Z</td><td>Normal</td><td>11.60 Ω (Approx.)</td><td>17.34 Ω (Approx.)</td></tr>
<tr><td></td><td></td><td>Abnormal</td><td colspan="2">Open(∞ Ω) or Short Circuited (0 Ω)</td></tr>
<tr><td>Starting Relay</td><td> </td><td colspan="4">Measure the resistance with a tester.
(Ambient temperature : Room temperature 25°C)</td></tr>
<tr><td></td><td></td><td>Model</td><td colspan="3">PTH7M330MD2</td></tr>
<tr><td></td><td></td><td>Normal</td><td colspan="3">33 Ω ± 20% (Approx.)</td></tr>
<tr><td></td><td></td><td>Abnormal</td><td colspan="3">Open(∞ Ω) or Short Circuited (0Ω)</td></tr>
<tr><td>Overload Protector</td><td> </td><td colspan="4">Measure the resistance with a tester.
(Ambient temperature : Room temperature 25°C)</td></tr>
<tr><td></td><td></td><td>Model</td><td colspan="3">4TM276RHBYY-53</td></tr>
<tr><td></td><td></td><td>Normal</td><td colspan="3">Less than 1 Ω (Approx.)</td></tr>
<tr><td></td><td></td><td>Abnormal</td><td colspan="3">Open(∞ Ω) or Short Circuited (0Ω)</td></tr>
<tr><td>Running Capacitor</td><td> </td><td colspan="4">Measure the resistance with a tester.
(Ambient temperature : Room temperature 25°C)</td></tr>
<tr><td></td><td></td><td>Model</td><td colspan="3">4.0 μF / 400 VAC</td></tr>
<tr><td></td><td></td><td>Normal</td><td colspan="3">Open(∞ Ω)</td></tr>
<tr><td></td><td></td><td>Abnormal</td><td colspan="3">Short Circuited (0Ω)</td></tr>
</table>

5	Replacement of Parts

- Unplug the power cord before servicing.

1. **Model** : GTU150PAXR

Part Name	Operating Procedure
Lamp	

1. Release Freezer Shield Light lock.	2. Remove Freezer Shield Light.	3. Turn Lamp counterclockwise to remove.

4. After replacing Lamp, reverse the steps above.

Part Name	Operating Procedure
Volume Ass'y	* Freezer Corner reassembling.

1. Release Freezer Corner lock.	2. Remove Freezer Corner.	3.Turn Knob Thermo F to "Min" position.

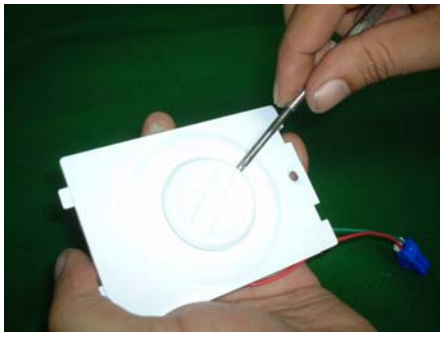
4. Release screw form Cover.

5. Dig Cover out.

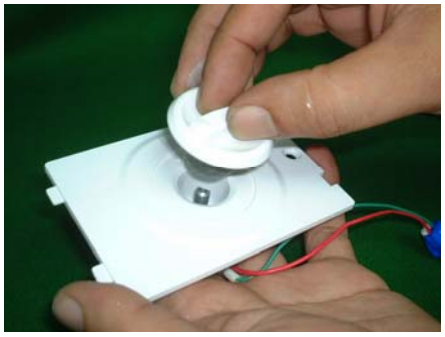
6. Pull out Cover from FF.Cover.

7. Pull out Socket of Volume Ass'y.

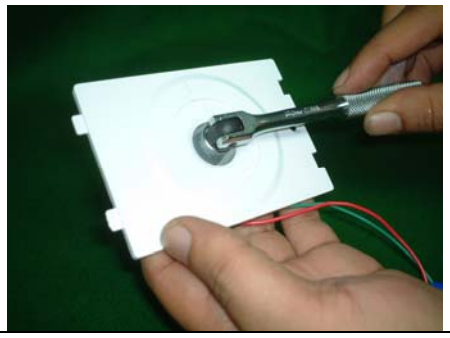
8. Dig Knob Thermo F out.



9. Pull out Knob Thermo F from Cover.



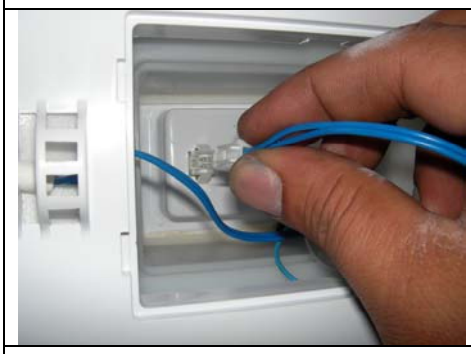
10. Release Nut from Volume Ass'y.



11. Remove Volume Ass'y .

12. After replacing Volume Ass'y, reverse the steps above.

Part Name	Operating Procedure
Sensor Ass'y	- Follow step 1-7 of replacing Volume Ass'y.

1. Pull out Socket of Sensor Ass'y.	2. Dig Cover Cap out.	3. Release screw form FF.Cover.
		
4. Press FF.Cover to remove lock.	5. Lift FF.Cover out.	6. Return the FF.Cover to show behind side.
7. Remove Seal from FF.Cover.	8. Pull out Sensor Ass'y from FF.Cover.	9. After replacing Sensor Ass'y, reverse the steps above.

Part Name	Operating Procedure
Fan Blade F. 	- Follow step 1-7 of replacing Volume Ass'y. - Follow step 1-5 of replacing Sensor Ass'y.

1. Use Pliers to catch at Fan Ring.	2. Pull out Fan Blade F from Plate MTG Motor.	3. Pull out Fan Ring from Fan Blade F.

4. After replacing Fan Blade F, reverse the steps above.

Part Name

Fan Motor F.

Operating Procedure

- Follow step 1-7 replacing Volume Ass'y.
- Follow step 1-5 replacing Sensor Ass'y.
- Follow step 1-3 replacing Fan Blade F.

1. Release screw form Plate MTG. Motor.

2. Press Plate MTG. Motor to remove lock.

3. Lift Plate MTG. Motor out.

4. Release screw form Cover Fan Motor.

5. Pull out Cover Fan Motor form Plate MTG. Motor.

6. Lift Fan Motor F out.

7. Pull out Socket .

8. After replacing Fan Motor F, reverse the steps above.

Part Name

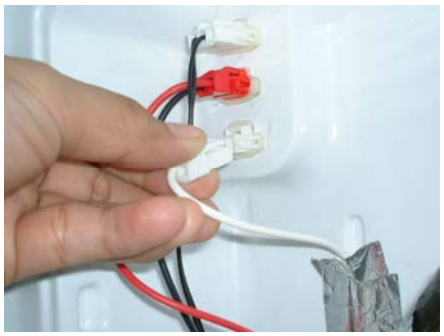
Heater

Operating Procedure

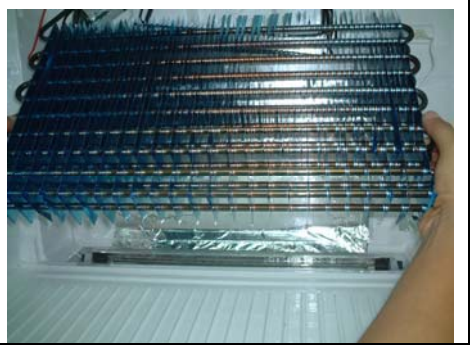
- Follow step 1-7 replacing Volume Ass'y.
- Follow step 1-5 replacing Sensor Ass'y.
- Follow step 1-3 replacing Fan Blade F.
- Follow step 1-3 replacing Fan Motor F.

1. Pull out Socket of Heater.

2. Pull out Socket of Heater.



3. Hold firmly and life Evaporator Ass'y up.



4. Remove Aluminium tape that cover electrical wire.

5. Lift up Heater set form its lock.

6. After replacing Heater, reverse the steps above.

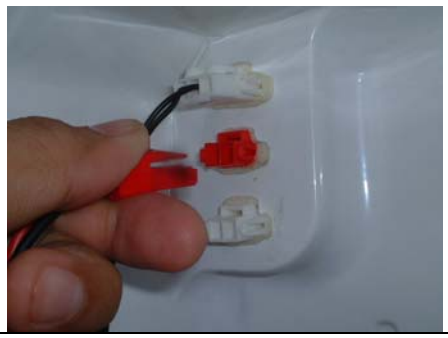
Part Name

Thermal Fuse Ass'y

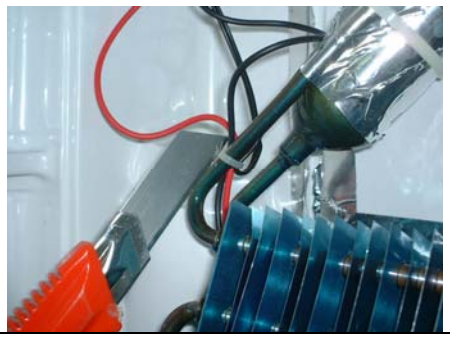
Operating Procedure

- Follow step 1-7 replacing Volume Ass'y.
- Follow step 1-5 replacing Sensor Ass'y.
- Follow step 1-3 replacing Fan Motor F.
- Follow step 3 replacing Heater.

1. Pull out Socket of Thermal Fuse Ass'y.



2. Cut out Cable Tie from Evaporator tube.



3. Cut out Cable Tie from Evaporator tube.

4. Remove Thermal Fuse Ass'y.

5. After replacing Thermal Fuse Ass'y, reverse the steps above.

Part Name

D Sensor Ass'y

Operating Procedure

- Follow step 1-7 replacing Volume Ass'y.
- Follow step 1-5 replacing Sensor Ass'y.
- Follow step 1-3 replacing Fan Motor F.
- Follow step 3 replacing Heater.

1. Pull out Socket of D Sensor Ass'y.

2. Cut out Cable Tie from Evaporator tube.

3. Remove Aluminium tape that cover D Sensor Ass'y.

1. After replacing D Sensor Ass'y, reverse the steps above.

Part Name

Door Switch.

Operating Procedure

* Use a small flatten screwdriver to prize Door Switch.

1. Dig Door Switch out.

2. Pull Door Switch form Inner Box.

3. Hold recept Socket.

4. After replacing Door Switch, reverse the steps above.

Part Name	Operating Procedure	
Lamp. 		
1. Pull out Tray Chiller. 	2. Unlock Shield Light R out. 	3. Remove Shield Light R from Duct.
4. Turn Lamp counterclockwise to remove. 	5. Remove Lamp from Lamp socket. 	6. After Replacing Lamp, Reverse steps above.

Part Name

Fan Blade R

Operating Procedure

1. Remove Tray Chiller.

2. Release Door.

3. Remove Tray Chiller.

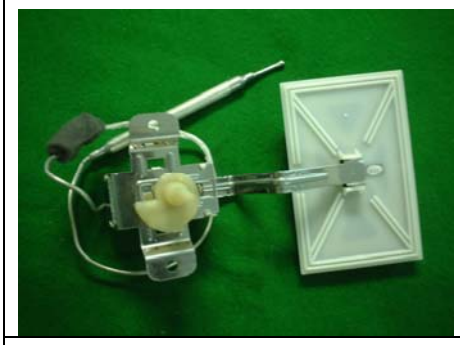
4. Unlock Fan Cover out.

5. Remove R Fan Cover from Cover Thermo.

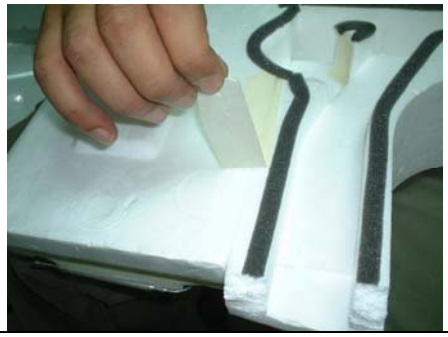
6. Dig Fan Ring.

4. Pull Fan Blade R from Cover Thermo.

5. After Replacing Fan Blade R, Reverse steps above.

Part Name	Operating Procedure	
Damper Thermostat 		
1. Remove Tray Chiller.	2. Release Door.	3. Remove Tray Chiller.
4. Dig Cover Cap out.	5. Release screw from Cover Thermo.	6. Dig Knob Thermo R.
7. Pull out Knob Thermo R from Cover Thermo.	8. Lift out Cover Thermo.	9. Lift out Insulation.

10. Remove paper tape from Insulation.



11. Remove Seal from Insulation.

12. Remove paper tape from Damper Thermostat.

13. Straighten Damper Thermostat sensing tube.

14. Separate Insulation from each other.

15. Pull Case Damper from Insulation.

16. Release screws that hold Damper Thermostat and Case Damper.

17. Pull Damper Thermostat from Case Damper.

18. After Replacing Damper Thermostat, Reverse steps above.

Part Name	Operating Procedure
UV-PCB. 	- Follow stop 1-9 of replacing Damper Thermostat.

1. Release screws form Duct.

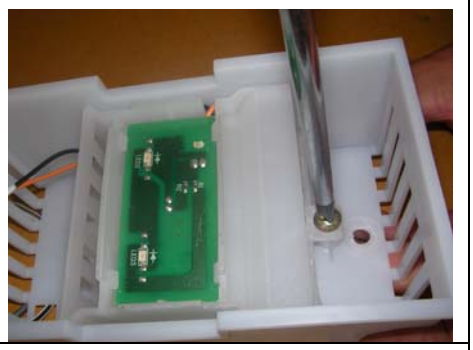
2. Lift out Duct and Insulation L-R.

3. Release screws form Plate MTG.

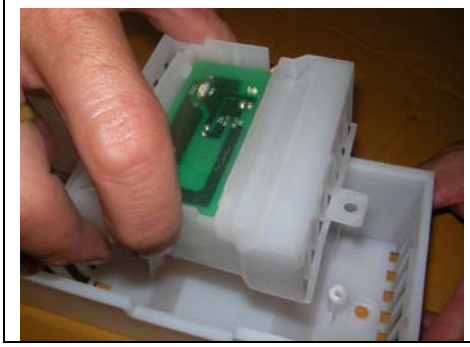
4. Lift out Plate MTG.

5. Pull out Socket.

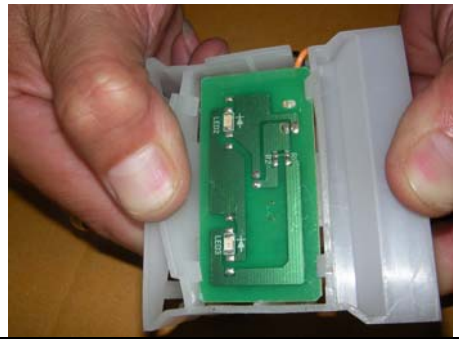
6. Release screws form Plate MTG.



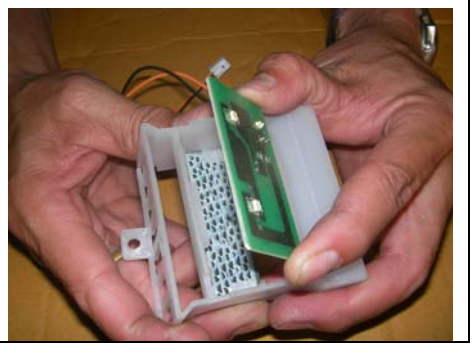
7. Lift out Plate MTG.



8. Press UV-PCB to remove lock.



9. Lift out UV-PCB.



10. After replacing UV-PCB, reverse the steps above.

Part Name	Operating Procedure
Lamp Socket. 	- Follow stop 1-9 of replacing Damper Thermostat. - Follow stop 1-5 of replacing UV-PCB.

1. Remove paper tape form Plate MTG 008.	2. Press R Lamp Socket to remove lock.	3. Lift out R Lamp Socket.

2. After replacing R Lamp Socket, reverse the steps above.

Part Name

Fan Motor R.

Operating Procedure

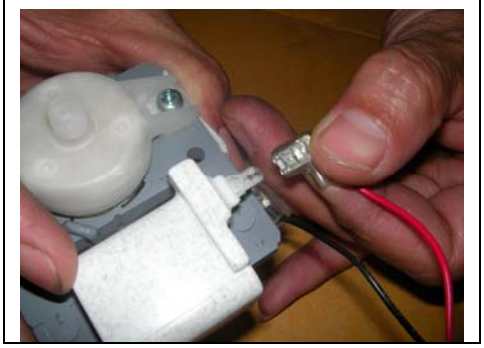
- Follow stop 1-9 of replacing Damper Thermostat.
- Follow stop 1-5 of replacing UV-PCB.

1. Release screws form PLT MTG Fan Motor.

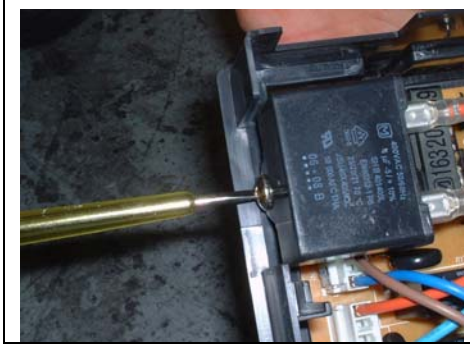
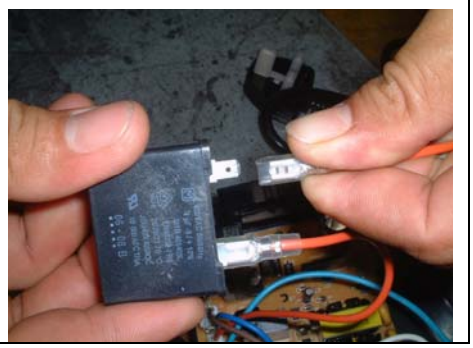
2. Lift out PLT MTG Fan Motor.

3. Lift out Fan Motor R.

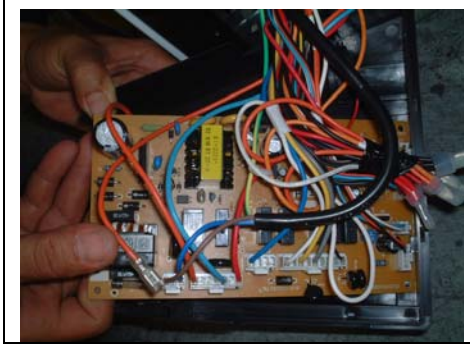
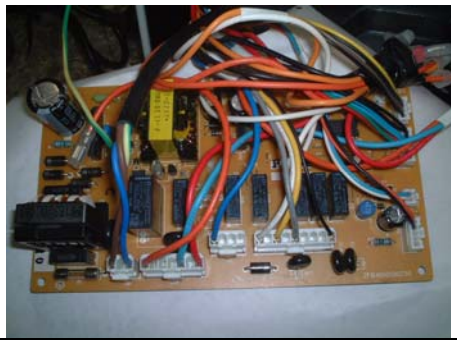
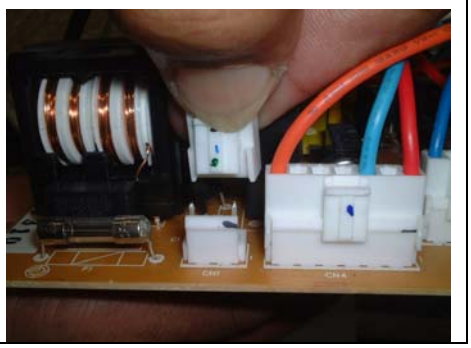
4. Pull out Terminal.



5. After replacing Fan Motor R, reverse the steps above.

Part Name	Operating Procedure	
Running Capacitor. 	* Open Cover Case Elec. Must be release screw (1 piece) then remove the lock between Case Elec. and Cover Case Elec.	
1. Release screw form Case Elec. 	2. Lift out Case Elec. 	3. Pull out Case Elec. Form Cover Case Elec.
4. Release screw form Running Capacitor. 	5. Pull out Terminal form Running Capacitor. 	6. After Replacing Running Capacitor, Reverse steps above.

Part Name	Operating Procedure
Main PCB.	- Follow stop 1-5 of replacing Running Capacitor.

1. Press Main PCB to remove lock.	2. Lift out Main PCB.	3. Pull out Socket Main PCB.
		

4. After Replacing Main PCB, Reverse steps above.

Part Name

Starting Relay.

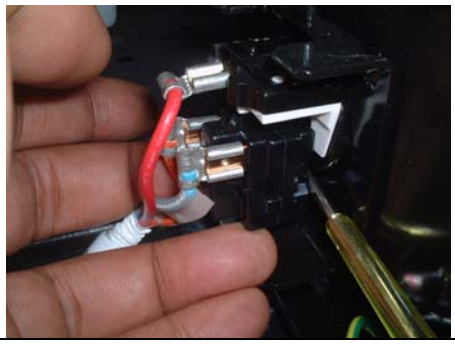
Operating Procedure

- Follow stop 1-2 of replacing Running Capacitor.

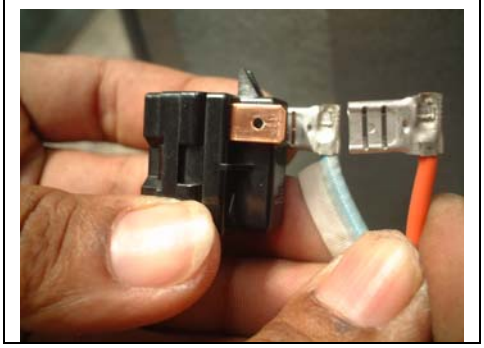
1. Release Relay Cover Fixing Clip.

2. Remove Relay Cover.

3. Remove Starting Relay.

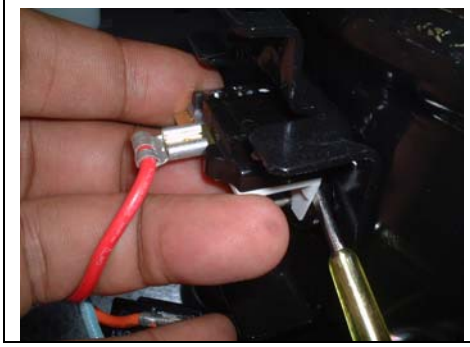


4. Hold Recept Terminal then pull electical wires from Starting Relay.



5. After Replacing Starting Relay, Reverse steps above.

Part Name	Operating Procedure
Overload Protector	- Follow stop 1-2 of replacing Running Capacitor. - Follow stop 1-3 of replacing Starting Relay.

1. Remove Overload Protector.	2. Pull off Overload Protector.	3. Hold Recept Terminal then pull electical wires from Overload Protector.
		

4. After Replacing Overload Protector, Reverse steps above.